


THE ART OF
RETOUCHING



BY
BURROWS & COLTON







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RETOUCHING.

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Geo M. Valentine
Southampton

Concise Instructions

IN THE ART OF

RETOUCHING,

BY

BURROWS AND COLTON

*(Successors to SOUTHWELL BROTHERS, Photographers Royal, 22, Baker Street,
London, W.)*

WITH LITHOGRAPHIC ILLUSTRATIONS AND NEGATIVES,

Which may be detached and printed from as examples.



LONDON :

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1876.

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P R E F A C E .

IN submitting this work to the notice of the professional and amateur photographers of Great Britain we wish, at the outset, to state that it has been our desire to avoid the beaten track, and, at the same time, to disclaim sincerely the idea of having wilfully encroached upon others' rights or ideas, or trodden on ground not our own. We wish it to be further understood that we do not claim originality for much we shall describe, and from this fact trust to be spared the pain of seeing our book made the subject of severe controversy.

In a necessarily restricted subject like this we find it difficult to confine ourselves to our own ideas, and we are compelled to quote the experience of others. This, it will be found, we have done in order to make our work more replete with practical hints; at the same

time we have quoted none which are really unimportant to the beginner.

We earnestly hope that the thoroughness and absence of unnecessary elaboration of the matter herein contained will at once commend it to the notice of the professional photographer, while its lack of technicalities and its matter-of-fact style will make it equally welcome to the amateur.

INTRODUCTION.

FOR the past few years nearly every subject of Photography has been treated upon so exhaustively that little remains to be said concerning it. Retouching seems to be the only one which has not received the amount of attention it unquestionably deserves ; for, beautiful as the art of Photography is, there can be no shadow of doubt that it has many shortcomings, and to meet some of these Retouching is undoubtedly a powerful adjunct.

Articles have appeared at different times which have treated generally of the effect and advantages of Retouching, but few have given the reader any insight into the practice of this very interesting and important branch.

Our object now is to give such minute and lucid details as to enable anyone with an ordinary amount of taste to acquire the art of Retouching in a short space of time.

Of course we do not pretend to say that one is to succeed in becoming a first-class retoucher in a few days by simply reading through the rules and directions prescribed herein. Still, while admitting the fact that a few personal lessons from a practical hand would greatly facilitate one's learning, we do claim that by following carefully the rules we lay down, for whichever system it is proposed to learn, results may be obtained with practice in a short space of time which would otherwise take the learner perhaps months to master.

One thing we particularly recommend is that the learner will adhere to one system until mastered; for by trying a little of one method and a little of another an uncertain style is acquired, the working of which takes much more time from the fact of there being no system in it, producing results altogether unsatisfactory. As we intend this work to be a practical instructor we will launch at once into our subject, treating each point as it appears with the amount of care and minuteness of description required to simplify it.

CHAPTER I.



THE MATERIALS AND THEIR SELECTION.

THE requirements of the retoucher are a retouching-desk, a supply of pencils of various grades, a magnifying-glass, several small brushes, stumps of paper and leather, colour, cuttle-fish powder, and a bottle of matt varnish.

The negative should be fully exposed, thin, and full of detail; over-dense negatives are at all times unsatisfactory to work upon. Unfortunately, it is not always the retoucher's fortune to get negatives possessing such a degree of excellence as he would wish; in fact, it is the practice of many operators to allow indifferent ones to pass, consoling themselves with the thought that the retoucher can make all defects good. This is to be regretted, being by no means conducive to the production of good work or advancement of the art; it is,

*J. H. W.
D. B. W.
1884*

however, the case, and being so we must resort to the readiest means of correcting the error.

If it be intended to work the negatives upon the varnish they will require to have the surface abraded with cuttle-fish powder, or some other abrading substance, to cause the pencil to bite. This slight matter, which would appear so simple, is by no means the least important, and requires to be done as systematically and with the same amount of attention as any of the subsequent operations. Care being taken that there are no gritty particles in the powder employed (which would scratch the film) place as much upon the face as will cover a threepenny piece, and proceed gently to grind the surface with the ball of the finger—not in a circular motion, as would be the most usual course, but up and down the face. This produces a surface which takes the lead pencil better, and produces a finer touch, than the circular abrasion. Rub very carefully, holding the negative in such a position as to be able to see that the powder is not cutting through the film, and until the surface feels tolerably rough. Examine with the magnifying-glass from time to time, to see that the right surface is produced and properly abraded to give a bite to the pencil perfectly matt, containing no shiny

patches, and dust off the superfluous powder with a soft brush. If not sufficiently abraded repeat the operation, as this precaution may often save the retoucher having to remove all his work in consequence of the pencil refusing to take in some parts, necessitating the re-abrasion of the whole surface.

Various gums and solutions are employed in place of the powder to give a tooth to the film, but none have answered so well in our hands as the cuttle-fish. We shall give the formulæ for these solutions as we proceed, so that the operator may try each in its turn, and select the one answering his touch best. It seldom happens that two retouchers can at first use precisely the same materials for working, as they may not have the same touch. The more delicately the work upon a negative is to be done the finer and, at the same time, the more abraded or matt must be the surface. This is why re-touching done upon unvarnished films is so much finer and softer than that done upon varnish, the matt surface of the collodion, which has been hardened or tanned, as it were, by some means, being so exquisitely fine that it may be worked upon to any extent. We have met some retouchers who could not possibly retouch upon these films, simply because they had not the delicacy of

note

touch required for such work ; and, if an operator does not possess a light touch naturally, it is an exceedingly difficult matter to accustom himself to handle the pencil in such a way as to produce light strokes.

We would advise all beginners to commence working upon the varnish ; for, although working on the film is decidedly more pleasant and expeditious, and negatives so treated produce superior prints, it takes much longer to learn upon films than upon varnish. Having once mastered the art upon varnish very little practice is required to become perfect in working upon a medium.

Another reason why the beginner should use varnish until he can make sure of every touch is that, not being thoroughly accustomed to this work, he is constantly making mistakes, or finds when his negative is printed that he has done too much upon it, which will have to be removed. Upon the varnish this can be done by re-abrasion of the surface with cuttle-fish powder ; but upon the unvarnished picture it is not such an easy matter, and in many instances cannot be done.

PENCILS.

In the selection of pencils the greatest pains should be taken and the greatest difficulty will be found, as few

makers produce leads of an uniform quality. Those used for retouching must be of the finest and closest manufacture possible to procure, well moulded, and absolutely free from grit. For general work HHH or HHHH will be found the most suitable grades, using a harder one for fine dotting and upon those parts which require but a light touch.

Having procured your pencils proceed to sharpen them by cutting away the wood, leaving about one and a-quarter inch of the lead free to be pointed. Rub the lead away upon a piece of glass-paper until it has a very sharp, long, and slender point. The wood must be cut away rather obtusely to prevent it obstructing the sight while being used, thus:—



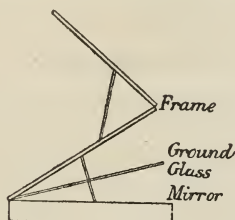
We now allude, of course, to the ordinary wood-cased pencils. In our own practice we much prefer using those known as “Artists’ Ever-pointed Pencils.” These holders are made by different makers, the advantages in their use being that they are always the same length and are less expensive than the other forms. One holder is sufficient for all purposes, the leads being changed as they are needed. Leads of various grades

should always be kept in readiness to take up as the character of negative or circumstances may require. We shall describe the different methods employed and which have come under our notice, pointing out, at the same time, their respective merits or disadvantages. We must again remind the reader, in passing, to adhere strictly to one method, whichever he proposes to learn, until perfect in it before attempting a second style, otherwise the object aimed at in this book will be lost.

THE LIGHT.

The light by which negatives are to be retouched must necessarily be a good one. By this we do not mean to imply that it is to be a very powerful, glaring light, although it should be sufficiently strong to show all the defects in the negative when reflected through it by means of a suitable reflector. The usual plan of retouching-desk fitted only with a plain mirror, which has to be used near a window, has the disadvantage of giving a false, glaring light, which in time impairs the sight, and, at the same time, does not give as satisfactory results as would be wished for. This defect may be obviated to a great extent by suspending a

ground glass at half the angle formed by the mirror and middle frame of the desk when opened, thus :—



A piece of ordinary glass coated with matt varnish will answer the purpose as well as, if not better than, ground glass ; besides, it is not as expensive, and if broken can be replaced at a very trifling cost.

THE MAGNIFIER.

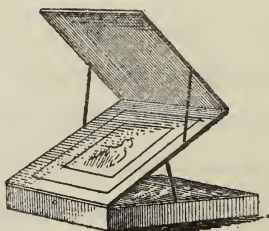
The magnifying-glass used should be of about six inches focal length and, preferably, from three and a-half to four inches diameter, to enable the operator to see through it with both eyes. It should be fixed in some way that it may be always used at the same distance from the negative and in the same position ; for, if held in the hand, it is liable to such constant vibration—which causes the eye to incessantly change focus to accommodate itself to the moving glass—that in a very short time the sight would become permanently

impaired. This is particularly the case with persons whose eyes have a tendency to dilation of the cornea.

THE DESK.

There are many forms of desks in use for negative retouching. Those generally employed are fitted with carriers or frames to take the different sizes of photographic plates. The desk itself consists of three frames hinged together, with a plate of silvered glass embedded in the lower frame to reflect the light. The carriers are rebated to fit in the middle frame, and the upper frame is made solid to prevent the light reaching the retoucher's eyes. The upper and middle frames are supported in position by means of light iron bars, which fit into notches at the lower ends; the bar itself lies in a groove when the desk is closed.

The annexed sketch will give an idea of the sort of apparatus of which we speak:—



Another form is also used answering the same purpose, in which the carriers are replaced by a plain sheet of glass, which permits of the different sizes of negatives being worked without the removal of carriers or frames.

Some of the desks of this description have a horizontal bar, at the ends of which are two pegs with nuts and thumb-screws. These pegs slide in grooves or slots in the side of the frame, being held in position by tightening the thumb-screws. The negative is placed upon the sheet of glass, the lower edge resting upon the cross-bar, by means of which it is kept in any desired position.

We have recently patented a retouching-desk—a full description of which will be found in our advertisement—having many improvements and advantages over the existing forms. Amongst the chief of these are:—The negative can be worked upon and held securely in any position without the use of drawing-pins or removal of inner frames or carriers, all light being excluded from the negative except where it is being worked upon. The magnifier is so arranged as to form part of the desk itself, and is held in position by a brass arm having an universal movement, which, while allowing it to be placed at any distance from the negative, or at any

angle to suit the sight of the operator, possesses the great advantage of being absolutely rigid, and does not interfere with the retoucher's right arm. Thus the eye is spared the exertion of accommodating itself to the ever-changing focus resulting from the magnifier being held in the hand, which practice is much to be deprecated, being very injurious to the eyesight, as, indeed, must be patent to all giving the matter a moment's consideration.


Of course to the amateur, or even to the professional photographer who occupies himself with retouching but a short time daily, this may not be of so much interest; but to the operator who is seated at the retouching-desk eight or more hours a day, starting with the knowledge that no man even with the best eyesight could hope to retain it unimpaired after a few years' constant employment at retouching, even without using a powerful glass, and a strong, glaring light, it becomes a matter of vital importance. We do not advance this simply as a passing remark, but as an absolute fact, based upon a long experience; and our opinion on this head will, we are sure, be shared by all whose experience has placed them in a position to judge. We recommend all those who may be professionally engaged to work

with as little light as possible, and to allow the light to pass only through that portion of the negative which is being retouched.

Our desk is fitted with an appliance similar to one we have used for several years, which enables the retoucher to regulate the amount of light passing through the negative, as circumstances and the strength of the negative may require, and possesses the advantage of showing the result of his labour upon the finished print, so that he need not be in doubt—as was often our case before using the appliance—as to whether or not a certain line, spot, or defect of any kind would be visible in the resulting picture.

The desk in question is also readily adapted for night work, using for this purpose a lamp the rays from which are optically corrected by means of the appliance above alluded to. The reflector used during daylight is also utilised, and with it the light can be either concentrated or diffused as desired.

A pencil pointer attached to the desk is held in a rigid position by means of a spring immediately at the right hand of the operator, and the pencil can be re-pointed from time to time without the eye ever having to be removed from the negative.

CHAPTER II.


THE REQUIREMENTS OF RETOUCHING.

IN order to do good work the retoucher must first learn what retouching is required; that is to say, to judge at first sight just the amount of work to be done, and what alterations are to be made to improve the printing qualities of negatives without destroying any of their character. This will, of course, take more or less practice, depending upon the knowledge the retoucher has, and the amount of artistic talent he possesses, it being impossible for an improvement to be effected unless one possess the power of correctly appreciating a defect.

We will endeavour to show our readers as plainly as possible the work necessary to be done upon a negative; and, in order to render our explanation more explicit, we will refer to the plates we have given, which show

the muscles and lines of the face. We also recommend the reader to refer to them occasionally while practising, as they will very materially assist him to model correctly. It will be observed that we take for granted all through this work that our pupil is totally ignorant of retouching in any form; indeed, we even presume that he does not understand really what the art is. This may render our book insipid to some, but to the uninitiated it is important to treat the subject in this manner, otherwise it would be almost impossible for one to glean a spark of practical information. It will greatly assist anyone taking up retouching for the first time if they will study carefully the character and anatomy of faces, and learn to give to, or rather retain in, each face the peculiarities of character it possesses. At the same time it is equally important to improve the printing qualities, lighting, and expression of the negative; but to know how to do this, and in so doing to lose the points we have above mentioned, would be worse than useless.

Nothing is more annoying to a photographer than to produce a faultless negative (chemically and artistically speaking) and have it completely ruined by the retoucher, who, without regard to expression, &c., aims simply at

Good

For a
Beginner
Note

correct

making the negative perfectly smooth or fine. He obliterates all trace of character by so doing, and generally treats all faces of either sex, young or old, in precisely the same manner; instead of which it should be his endeavour to improve and retain the peculiarities which he has removed, and not work a face of a man of sixty as delicately as that of a schoolboy. As he progresses, bearing in mind the hints we give him, he will soon discover the means of doing this. He will learn to make with facility any alteration that taste may suggest, such as the fixed, staring, and unnatural look, which so many persons assume while sitting for a portrait, into an easy, natural smile; or to change the forced, sinister smile assumed under the same conditions into a calm and pleasing expression.

learn!

note

These things are all possible, and one unacquainted with the means by which these changes are effected is sometimes surprised at the power a retoucher has to modify his negative at will. Upon negatives this is much easier than in drawing or painting, particularly to those whose knowledge of drawing is limited, as in the negative the modelling, &c., of the face is all indicated. Even though it may not be strong enough to print it can always be seen sufficiently in a soft light to enable

the operator to strengthen it to any extent. The common error into which beginners are very apt to fall is their tendency to give too much rotundity to the face, producing prints which have the appearance of a wax doll, the skin being smooth and soft to a degree, but absolutely devoid of character, there being a total absence of half-tone or that delicate modulation which gives to a picture all the life it may have.

Exaggerations of photography are also to be looked to. These are, beyond doubt, the most formidable difficulties it is the retoucher's misfortune to have to encounter. The most troublesome of these, perhaps, is the displacement (if such a term can be used) of the nose. It is surprising the number of different shapes that can be given to this feature by the slightest alteration of the light or of the position of the sitter or camera. The artist-photographer builds half his reputation upon the knowledge of this fact.

We will instance the case of a lady whose nose is of the retroussé stamp. Mr. Smith photographs the lady, posing her with the head slightly elevated and the camera raised to a level with, or even a little lower than, the sitter's head, it being posed in such a position as to give nearly a full-face portrait, the light reaching

must
too rotund

half tone

crow

the

note

the

the

the sitter from the front and top. As a natural consequence the lady is not satisfied with her portrait. The shape of the nose has been completely changed—the end enlarged and the bridge flattened—giving the lady an expression quite foreign to her.

Mr. Brown is next visited, who, being an artist, decides at once the position, &c., most suitable to this class of features, and accordingly gives his sitter an artistic, meditative pose, avoids either full face or profile, allows a soft, diffused light to reach the sitter from an angle of about forty-five degrees top and side, gives a good exposure, and develops thoroughly. By this means he brings out every shade of detail possible, so that when he commences to retouch the negative he has something to work upon, and is able to modify the nose to any extent. The result is that the lady is pleased with her portrait, and Mr. Brown is declared to be the only photographer of the age.

Now it is not with Mr. Brown's negatives we have to deal, but with those of our unfortunate and inartistic friend, Smith.

The unnatural, badly-formed nose he has given must be converted or modified to one of the type most suitable to the sitter's peculiar style of beauty—not to alter it

into a Roman nor an aquiline nose, which would be as great a mistake as that already made. As the lady's nose is *retroussé* the rest of her features will be, no doubt, in keeping, seeing which the retoucher is to make the nose correspond or harmonise with the rest of the face. This is not at all times an easy matter, but can be accomplished in most cases by a little judicious working, as we shall describe when speaking of this part of the face.

One of the practices prevalent among photographers, which tends to increase the retoucher's labour, is the under-development of their negatives. Many photographers seem to be afraid of their developer, allowing it to remain upon the plate so little time that all the imperfections, such as deep lines, freckles, &c., which with proper development appear semi-transparent, are absolutely clear glass. The development should be carried on until the details are all *well* out, and the freckles, &c., partially subdued. In very freckled faces the development may be carried much farther than usual.

An excellent way of subduing freckles is to wash the face in warm water immediately before sitting, or to rub well with a rough towel. This makes the sur-

See
Re. lvs
Faces
Developed

rounding portions of the face red, the freckles remaining yellow. By this means, and a little longer exposure than usual, the freckles will be scarcely visible in the negative. Even in the worst cases they are so considerably reduced, and the retoucher's work so materially lessened, that the photographer is compensated for his extra trouble. The face may be also well powdered, which will greatly reduce the exposure.

Density

When retouching freckles and deep lines it is often found a difficult matter to get the pencil to take in parts that have been once touched, the pencil having so glazed the surface upon its first application that further density with lead cannot be given. For this reason it is necessary for the operator to be able to judge pretty nearly of the work needed, in order that he may get as much lead in with the first stroke as the spot will require. When a retouching medium is used (which we always prefer) after as much as can be put on the film is finished, the negative may be varnished, the surface then abraded, and the face re-worked upon the varnish.

Rembrandt negatives have to be treated rather differently to those ordinarily lighted; and in these more than in others the distorting effect of improper lighting is most apparent. The nose is by no means the only

part of the face which becomes distorted or exaggerated, and which requires most careful manipulation and much experience to restore to its true form. All freckles, lines, comedones, or black heads and marks of every description are exaggerated in this style of lighting to a much greater extent than in ordinarily-lighted negatives. This is often made much worse by under-exposure and over-intensification producing too strong contrasts. In elderly persons the lines of the face and texture of the skin are very much deepened, particularly when top light is used, and when the negative has been focussed pretty well to the front and a small diaphragm has been used in the lens. In this instance they become very troublesome, and require the most skilful working to make a presentable picture.

The labial furrow (No. 5, Pl. 2)—the line running from the nose to the corner of the mouth—is always deeper on the light side than on the shadow side of the face, from the fact that the one on the shadow side running in the same direction as the light in which the picture is taken the light enters it and brightens it up; whereas, on the other side, the light crosses the direction of the furrow, which, being shielded by the muscle, *Nasalis Labii superioris*—the common elevator

underexposure
overexposure

note
old negative
top light

labial furrow

of the ala (No. 7, Pl. 1) over it—no light enters it. The same rule applies to all other lines, though not to so great an extent, and for this reason—the shadow side of a face always contains less modelling and half-tone, but, being in shadow, it can be improved or rectified by skilful working.

Upon this point many beginners fail to satisfy themselves with their work, and yet a moment's reflection should show them at once where the fault lies, which, in most instances, consists in their filling up the whole shadow side, half-tone and all, making it quite smooth, and then adding a high light to correspond, as they think, with the other side of the face. They forget to consider that the light does not strike both cheeks alike. Due regard must also be given to perspective; muscles, &c., seen from one point of view differ materially from those viewed from another point in their appearance and lighting.

When reflectors are used (which, if employed, should be so placed as to avoid strong reflection and false lights) there is often a false light produced in the eyes, particularly that upon the shadow side, or next the reflector. This it is impossible to remove nicely in the negative, and must be touched upon the print. Methods

are given by some retouchers to do this, but as they are neither clean nor certain it is best to leave it to the spotter to remove. Properly speaking, false lights of any kind should not exist.

Another thing the retoucher has to accustom himself to is to be able to tell, upon seeing any unusually deep lines or peculiar marks, whether they are photographic exaggerations or really characteristic points of the subject, and, if exaggerations, to decide what extent and amount of modification they will bear without destroying the character of the face upon which he is at work.

The hands, hair, and drapery have also to receive an adequate share of attention, though these portions of a negative do not require such elaborate work as the face. At the same time what is done must be done carefully, and with the same light and shade effect as the rest of the picture. The hands, unless nicely formed, in good focus, and well posed, should always be as subdued as possible; and in no instance should either the hand or any accessory be more prominent or attract the eye more than the face. This should be the main feature of all negatives—the remaining portions being simply arranged and kept partly subdued. When the face is not the most attractive part in the negative the retoucher

must always intensify it by means of plumbago at the back ; and when any portions are too bright they may be greatly reduced by rendering the matt varnish transparent with turpentine varnish or dammar varnish. A diversity of effect may be obtained by lightening parts of the background with the plumbago.

With landscape negatives the retoucher has generally but little to do ; but it is well to know what to do when one has this class of negatives to work. As, however, little work is required, if worth doing at all it is worth doing well. More credit is due to a man who can make a passable picture of an indifferent negative than to one who produces good work having always the best quality and most suitable negatives to retouch. We do not mean by this that landscape negatives are generally indifferent, but it seldom happens that the retoucher has anything to do with really good ones ; whereas, upon the indifferent ones, the lights have often to be either put in or existing lights subdued, the cloud effects to be made to harmonise with the rest of the picture, and, in most cases, the whole of the sky to be worked in.

This is frequently done by combination printing (of which we shall speak in another chapter) ; but this plan is often impracticable, and the sky is left to the re-

sources of the retoucher to do the best that is possible with it. Mentioning this may seem superfluous, but these things must be all known to the pupil before attempting to retouch, as it is of little use working upon what one does not thoroughly understand, or trying to make improvements without a knowledge of what they are to be.

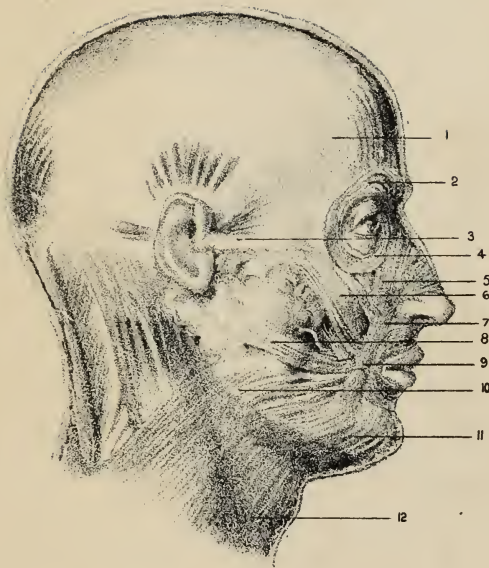
CHAPTER III.

—◆—
THE FACE, HANDS, DRAPERY, &c.

THE FACE.

THIS being the principal part of the negative to which attention is to be given, and upon which the whole beauty of a picture depends, we shall treat upon it at length, trusting that our readers may not become weary of the description and pass over our observations hurriedly, as we shall not mention any points which are not really important, and which the beginner should not carefully study.

As we have before mentioned, and as the pupil will readily understand, each face requires special treatment, from the fact that in all nature no two faces are alike. It is not meant by this that each and every face will require special study, but each peculiar type or class. In treating of the muscles and lines of the face to be



*Alar bone
of nose
Labi superioris
Labi inferioris*

*No 6 Alar or cheek bone
No 7 Nasals Labii superioris*

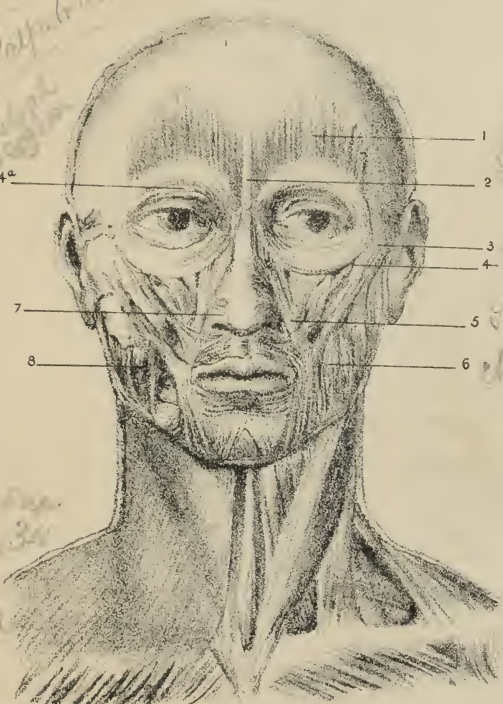
PLATE I

retouched we find the most convenient and comprehensive plan to be that of referring to a lettered plate, and to be, in fact, the only way of clearly explaining our meaning without employing unnecessary tautology. An inspection of our plate will show the principal muscles and lines to be found in every face, although some of them may not be quite as apparent in one person as in another, owing to the fact that some are subdued in a great measure by the predominance of surrounding parts. This is particularly noticeable in elderly persons, and more in men than in women. It would seem a fallacy to assert that in the face of an elderly person the muscles are not so apparent as in younger ones. It would be said, perhaps, that the older a person grows the more prominently his features, &c., are marked. This may be true as concerns the folds and wrinkles, but the muscles themselves are not so clearly defined; and for this reason it is not only the muscles which are to be studied, but their contractions and movements, as these latter form most of the lines to be treated.

As an example of this we will take the buccinator of the intermaxillary group; that is to say, the space between the jaws and the circumference of the mouth, and that corresponding with the lower jaw (*zygoma-*

maxillaris). In a young person these muscles are very pronounced; but in elderly ones the subcutaneous fat immediately under the skin disappears in proportion to the age of the person, and the integumentary covering, having lost its contractability, does not return to its accustomed form as in youth, but remains in folds, and falls to such an extent as to entirely alter the form as well as the expression of this part of the face. The same may be said of the palpebral region (No. 4 and 4A, Pl. 2); that is, the circumference of the eye, eyebrows, &c., which change their form to a greater extent, perhaps, than the others. The labial furrow (No. 5, Pl. 2) becomes very decided when the flesh has lost its form in the manner above mentioned. These lines must not be totally obliterated nor too much softened. Certainly a person is made to look much younger by such treatment, as, of course, it subdues the loose flesh, thereby showing more distinctly the true form of the muscles; still it destroys the true character of the face. The folds and wrinkles in the skin, which are caused by contraction of the muscles, run always in a perpendicular direction to the muscles themselves and cross their direction, such as those in the forehead. The frontal depression in a child is scarcely marked; but as he

Orbicularis Palpebrarum
Infraorbital



1 Frontalis
 2 Frontal depression
 3 Palpebrarum
 4
 5 Labial furrow
 6 Mentum & Mentum
 7
 8

1/2 Sesamoid cartilage
 1 Frontalis
 2 Frontal depression

Orbicularis Palpebrarum
 palpebral region

PLATE 2

Labial furrow line from lower nose to Mentum
 Mentum Labii superioris

or she grows older, and the muscles, *Orbiculares palpebrarum* (No. 4A, Pl. 2), are constantly contracted, a furrow forms across the forehead between these muscles above the nose, continuing up to between the frontals.

With respect to men whose foreheads are marked at an early age by much study, physical and moral sufferings, &c., the wrinkle, if not sufficiently retouched in the negative, would give a much older appearance to the portrait than that in actual life from the cause we have already explained; that is, the light crossing it.

The frontal depression, or the furrow in the forehead at the root of the nose, may be so treated as to give or disperse an expression of grief, pain, or frowning. It is sometimes only a single and very slight furrow; but in men much employed in intellectual labours there are generally two folds decidedly marked, and at the sides of these folds are two small protuberances, which should in no case be obliterated, while at times it is even advisable to increase their size somewhat by introducing a little light upon them. This modification may be resorted to with advantage in the case of negatives of persons whose eyes are further apart than the average, and whose foreheads are low and flat or receding.

To begin with the forehead and work down the face, in the same manner as it is retouched, will be the simplest way to get through our description.

The frontal eminences, which we always make the starting-point, are two prominences on the upper part of the forehead above the orbits and superciliary arches. They appear usually as two, but occasionally the depression separating them is so slight as to make the two appear as one large protuberance. In extreme youth they are always more pronounced; that is to say, the projection is greater, but, owing to the fresh, pulpy condition of the covering, the depression dividing them is not so decided. They must be smoothed and softened by very careful retouching, and brightened so as to appear the most pronounced high lights of the face (with the exception of the sharp line of light upon the nose), due care being taken to light them in proper perspective, and to give to the one nearer the source of light the greater prominence. A great fault with beginners often lies in placing the high light too near the centre of the forehead and too high up and near the hair. Immediately under, over, and between these lights a delicate half-tone must be left. The lower one must gradually increase in intensity as it approaches the

orbital arches or brows, where it is again worked into high light. From the outer edges of the frontals the forehead recedes, forming the half-flat temporal surface, which must always be left a half-tone slightly deeper than that between the frontals and orbits. This throws the frontals and orbits up, and gives life and form to the eyes.

There exists in muscular and thin persons a curved line or crest, which must be to an extent subdued. The malar or cheek bone (No. 6, Pl. 1) must be lightened and led into the cheek, the highest point of its light being under the eye, immediately over the highest point of the malar bone. As the bone approaches the ear it should be made less pronounced, the concha or funnel-shaped entrance to the ear may receive a very slight light upon the upper edge of the cartilaginous protuberance.

*Malar
or
cheek
Bone*

*concha
or
Funnel
shaped
entrance*

Having made this part sufficiently even, we now return to the frontal depression at the root of the nose, which must be kept subdued, simply evening it and removing too strong furrows running across the top of the nose. The upper lids of the eyes should be very cautiously touched, taking care to destroy none of the lines formed by the elevation of the lid. The eye itself

will receive a light upon the top light side of the iris ; this light will be but a wedge-shaped speck, and directly opposite to it there must be a longer light about the third of a circle in form, taking the same curved direction as the iris.

Place a light in the lower light side of the white fibrous membrane—the sclerotic—cautiously avoiding the blocking-up of the shadow formed by the upper eyelid. A small white speck placed in the extreme corner on the shadow side at the intersection of the lids—the *Caruncular lacrymalis*—and a few judicious touches on the edges of the lids, where the lashes form, finish the eye and greatly improve the life and expression of the negative. The lower lid has generally two or three sharp lines under or upon it and a furrow under it, which is very much increased by sorrow, age, pain, or excessive pleasure. This furrow must be very much subdued—not totally removed, as an indication of it must always remain to help the eye ; those above it, however, will require very little modification, and if too much diminished they give a dead appearance to the eye. This is confessedly the most troublesome part of the physiognomy to deal with, one injudicious stroke altering the whole expression, producing such a lifeless, unnatural



PLATE 3 .

look that the retoucher is at a loss to know where the fault lies.

At the side of the nose above the labial furrow will be found the common elevator muscle of the ala of the nose and upper lip. This may be lightened to a certain extent in the middle, but care must be taken not to carry the light too close to the nose, as the nearer it is to that feature the flatter and broader the nose appears. While working upon this muscle the labial furrow must be softened to the extent required, taking it nearly all away as it joins the nose and gradually running it into the cheek at the other end. Should the sitter have assumed a pouting, disagreeable expression, by which the furrow is made to curve down towards the mouth, its direction may be somewhat changed by removing the curved end of the line and leaving a portion of the face comparatively untouched where the line should have been. By placing a little light over this untouched part, and rounding the muscle somewhat, the line will print as if curved up, which, to say the least, will give a more pleasing expression. When this is resorted to to change the expression the crow-foot lines or furrows at the corner of the eyes may be allowed partly to remain, as also the round shadow at the corner of the

mouth—all of which help to make the expression. The shadow at the corner of the mouth can be increased by contrast by making a semicircular light around it.

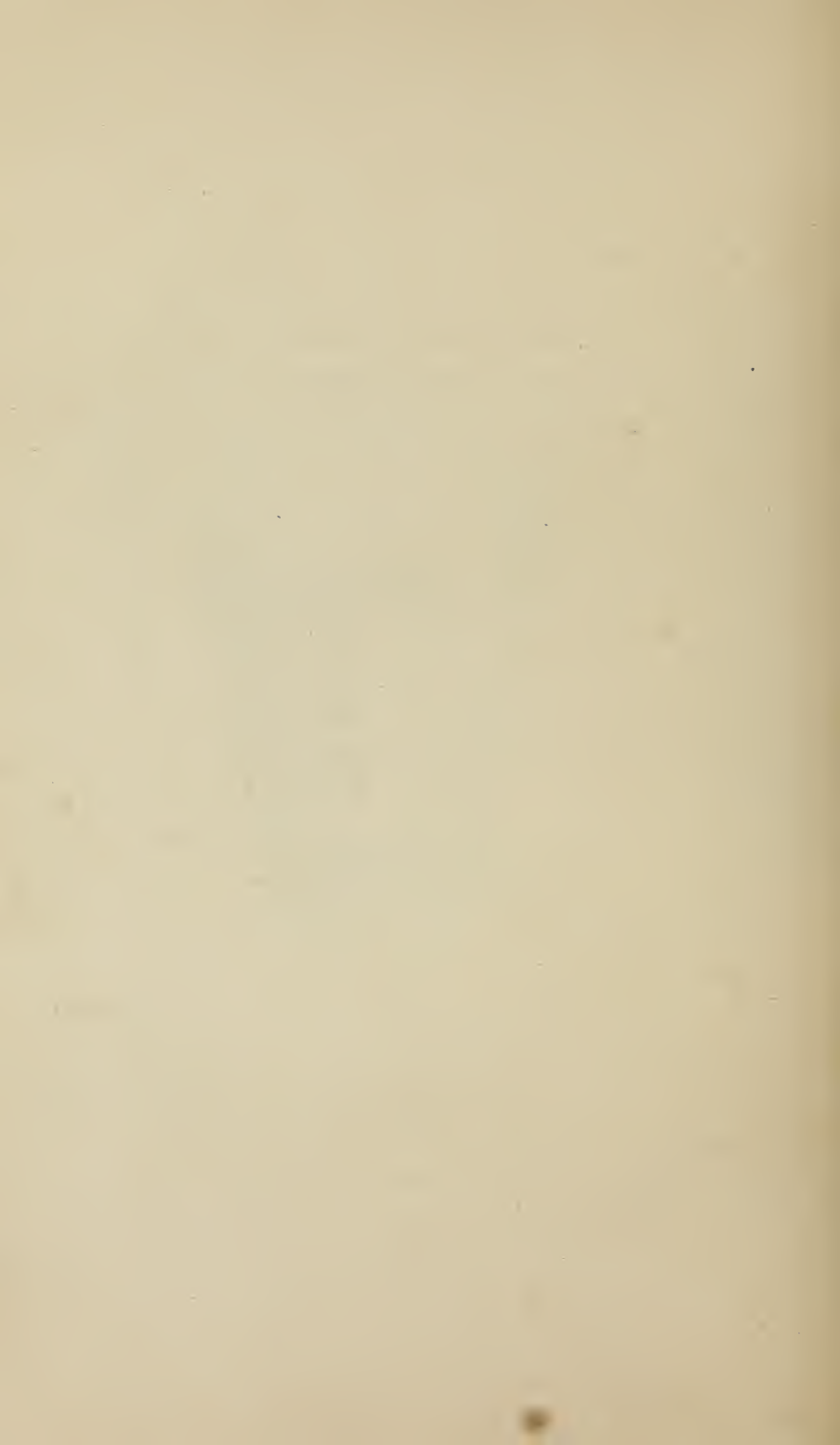
On the upper lip, in the centre, is a groove which terminates in the septum of the nose; the projecting edges of this groove must be brightened, the light increasing as it approaches the end at the edge of the lip. The light upon the light side of this groove must be a little longer than the one on the shadow side, as the nose throws a shade over the latter, which must not be disturbed at this point. A light should also be placed upon the upper edge, near the centre of the lower lip; this light must be very faint, just sufficient to give form and expression to the mouth.

The lips themselves will sometimes be found to have small downward depressions caused by the skin having become dry or cracked. Should this be noticed at the time of sitting a request should be made to the sitter to moisten the lips in the usual manner; but if from any cause they remain, and are visible in the negative, they must be wholly removed.

The shadow under the lower lip will require but little work, being simply softened and led into the chin to avoid too much rotundity or projection. The chin,



PLATE 4 .



although varying in form, is generally nearly round, with a slight indentation in the centre. The light must never be very strong upon this feature, and when the chin is square its form will have to be carried out in the lighting. Having finished so much of the face give the lower jaw a little light, evening up all inequalities and harmonising it with the work already done, and all that remains is to place the lights upon the nose and to remove markings in the neck. The light upon the nose will have to be very carefully worked ; if not, the rest of the work, however nicely done, will be greatly deteriorated. We have seen many negatives otherwise fairly retouched hopelessly spoiled, as far as the likeness was concerned, by the introduction of a line of light entirely out of character with the feature itself, and, in fact, completely altering its shape.

Some retouchers seem to labour under the impression that a patch of light on the forehead and a straight line terminating in a spot or bulb of light at the end of the nose are essentials in every case.

If the end or lobe be of a double form—which, however, is never very apparent—the light will have to be sharper, or, rather, more angular ; the longer the light along its side the longer the nose will appear. By

Nose
Sesamoid
Cartilage

making this high light more intense and broader at the middle the nose will be a better shape. Upon the wings or sesamoid cartilage (No. 1, Pl. 2) a round, very soft, and diffused light, just a shade removed from half-tone, should be placed, and when indicated in the negative the inner surface of the nostril may receive a light touch to relieve the intense shadow. When the nose has been distorted by improper lighting, as mentioned in a previous chapter, let the rest of the face be worked with rather more density than usual, and increase its opacity with plumbago at the back. The nose will now appear comparatively dark, and may be worked upon to any extent. The bulb must receive a sharp angular light, and the bridge lightened by a short, slightly-curved line, about the same density as the light upon the bulb. The edges of this light must be softened, and led into the half-tone between it and the cheek.

Nose
distortion

Neck

The neck seldom requires much retouching, except in portraits of ladies wearing low-necked dresses or bodices. All deep furrows should be removed, and a soft light placed upon the muscles and collar-bone. In men the larynx generally throws too deep a shadow, which should be softened; the light, however, must not be touched, as it would throw the throat too much forward.

Hair The hair may be improved by working upon the lights and blending them with the shadows, using for the purpose a blunt and soft pencil. At the edges the hair should be led into and given the value of the retouching done upon the face; this is to avoid too abrupt contour lines. The hair may be lightened all over by applying ivory black or plumbago at the back of the negative upon matt varnish. If the hair take too darkly a better effect may be produced by powdering it at the time of sitting. The broad lights in the face, as we have mentioned before, are also put in in this manner.

The hands and arms in ladies' portraits, when shown, will require to be worked up to subdue the heavy veins, which usually appear more prominent than in nature. The creases on the knuckles should be removed and the luna in nails strengthened. Unless the hands be very small and very well posed they should be always as much subdued as possible. In retouching the arms simply remove imperfections, putting in the lights upon muscles at the back, as described for the hair and face.

The drapery, except in cases of very glossy and thin silks—which usually appear too much broken up to receive further manipulation—should be brightened up to harmonise with the rest of the picture. Light

materials—blue, drab, and white—are by the slightest manipulation made to look so brilliant, and contain so much delicate half-tone and detail, that it amply repays the retoucher to bestow the little time required upon them, enhancing, as they do, the beauty of the negative. These lights are always indicated in the negative, though not sufficiently strong to print. It only remains, then, to intensify them by means of sharp, decisive touches applied to the back of the negative with a leather stump and plumbago. It need hardly be said that the pupil's knowledge of drawing will greatly assist him to do this. When the negatives are prepared for retouching upon the film a number of these sharp high lights can be put in upon the film side of the negative, using for the purpose a fine cork or moulded grey paper stump. When the back is shown, as is sometimes done in full-length pictures, avoid the folds or plaits running across the waist of the dress. Lace of any description is made to look very effective by a few sharp touches.

CHAPTER IV.

METHODS OF RETOUCHING.

FIRST METHOD.

WE shall begin by describing the method we employ in our own practice, and which has given so much satisfaction and received such hearty commendation from those who have favoured us with their commissions.

By preference we take a negative the film of which has been treated, before drying, with a medium of some kind to prevent the pencil going through and to give it the necessary tooth for working upon. Our tannin medium, which has been for some time in the market, is extensively used, and will be found to answer the purpose admirably without the disadvantages attendant upon the use of gum and other substitutes (for particulars of this see our annexed advertisement). Should, however, the negative have been varnished, much the same course or mode of working is adopted, the surface being abraded as described in a previous chapter.

We commence proceedings by placing the negative in such a position as to be able to make with a downward stroke of the pencil a line across the forehead. First fill in all irregular and transparent spots and lines (which we have mentioned in speaking of the face), giving to these spots and lines the same value as the surrounding portions of the forehead, beginning at the point of highest light. The regular lines—that is to say, the permanent ones—must not be totally obliterated, as we have already shown when describing the muscles, &c. The spots and irregularities are not to be completely filled in as in other processes, one or two short lines only being drawn through them. The object of this is to produce an effect of stippling upon the finished picture, which could not be done if the spots were completely blocked, unless the negative were afterwards stippled all over. This would, of course, entail much time, and the result has only a laboured look, without any of the pleasing, fleshlike stipple always produced when the touches are made as above directed. The lines and marks made must take the same direction as the lines of the skin and direction of the muscles, unless these lines are caused by the contraction of the muscles, when their direction is perpendicular and across the

muscles. These lines are, however, but few, occurring principally upon the muscles of the forehead, and occasionally upon the upper lip. The crow-foot lines upon the temples are produced in this way, but are exceptions to the rule, not being removed in every face. Fill in in the same manner, but with rather longer strokes, the deep lines in the forehead between the frontales (No. 1, Pl. 2) and the orbital arches and muscles (orbicularis palpebrarum—No. 4a, Pl. 2). Now turn the negative gradually round, and, still following the direction taken by the muscle of the orbit, soften the lines upon the temporal plane. The negative is now turned farther round until it is nearly upright, in which position the frontal depression (No. 2, Pl. 2) is worked, and also the nose, and the negative again turned back to such a position that the furrows under the eyes and the common elevator of the ala, the nose and the upper lip, may be softened and modelled. The same rules as to the direction of lines must always be strictly adhered to. Reference should here be given to remarks on the face, chap. ii.

The lines in the labial furrow, No. 5, should be made sufficiently dense at the first application, and should run the whole length of the furrow in one sweep

8 Years
Lead

of the pencil. Where the lines running in different directions cross or meet each other the space is filled in with small dots made with the point of the pencil. In this manner we proceed, turning the negative constantly, as the lines take a different direction, until the negative appears even and delicate all over. The strokes of the pencil must always be made an equal distance apart, or the work will not be uniform; and a stroke must never be made across a line. Always turn the negative until, with a downward stroke, the mark may be filled in. The negative now receives the necessary spotting, *i.e.*, removing all transparent spots in the film, from whatever cause produced, by filling the spot with neutral tint (dry cake) colour ground to match the negative, and applied with a very finely-pointed sable brush; though in the case of small pinholes, proceeding either from chemical causes or from dust either in the bath or deposited in any way upon the surface of the film previous to developing—at least upon a thin negative, and providing they are not on the face—we recommend them to be left untouched, as the small black spot produced in the resulting print is barely visible to the naked eye; whereas it is impossible to put on a touch of colour, however minute, without its showing more

or less. It is then coated upon the back with matt varnish, and the lights put in as they occur with a fine leather or paper stump charged with plumbago. In some negatives we find it more convenient to work the chin and frontal depressions solely by dotting with the point of the pencil. This, however, is only in cases where ladies have a rather coarse skin.

ANOTHER METHOD.

A method much employed by English retouchers consists in first filling-in all the imperfections completely; that is to say, the pencil is worked over the spots, &c., until no sign of them is visible. The inequalities of light and modelling are then done by short, straight lines running in a downward direction across the muscles and lines. The only parts of this process which are analogous to the last mentioned are the touching upon the nose and the frontal depression. Although the lines or strokes of the pencil take a downward direction they are seldom parallel, and not equidistant from each other. By some retouchers the lines are made so fine as to give the appearance of dotting. The effect, however, is by no means so good as the lines.

1873
 A method was described in THE BRITISH JOURNAL OF PHOTOGRAPHY of December 13, 1873, by Mr. G. Croughton, which we take the liberty of quoting for the benefit of those who do not happen to have seen the article referred to, as by it a very effective picture is produced and the method is a much quicker one than that described above :—

Elderly People
 Drawing Paper
 Acq?
 “ In elderly people the lines and texture of the face are far too marked in the enlarged negative ; these can be much softened and reduced by printing through tracing-paper. Strain the tracing-paper over the face of the negative, so interposing a thickness of tracing-paper between the sensitised paper and the negative. I always strain tracing-paper on the reverse side of the negative, as it serves to soften the printing, and is a capital medium for working upon with the pencil to strengthen the high lights. I can also, when wanted, deepen the shadows of drapery, and I make a varnish of Canada balsam one drachm, benzole one ounce. Dipping a brush into this, I run over the shades I want to deepen upon the tracing-paper ; the Canada balsam making the paper more transparent in those parts the light acts more quickly, and a greater depth of shadow upon the print is the result, the distance the paper is

from the film softening the edges. One plan I have adopted appears to me to be of great value for improving pictures which are flat from over-exposure or bad lighting, particularly if you wish your print to appear as if it were worked upon. The large head of a lady was done in this way, and the result, although there is not a touch upon the print, is such that more than one person has been tempted to bet that it was worked upon, and have only been convinced by a liberal use of sponge and water.

“The transparency was enlarged from a *carte*-sized negative to 10 by 8, varnished with Hughes’s matt varnish, to which I had added a little gum elemi (this must be allowed at least twelve hours to dry); then with a mixture of putty powder and powdered blacklead I rubbed all over the face till I had what appeared to be an even, delicate tint all over. I then cleared out the high lights with a piece of bread moulded to a point by the fingers.”

The Americans seem to have adopted all the various methods. As a rule, however, they work rather more in a scumbling style, giving the strokes no particular direction, but making a touch wherever taste suggests or an inequality requires it; and this in the most convenient

scumbling style

8000
~~~~~  
manner, no particular notice being taken of the direction of the lines of the skin. At the same time the work is done rather more systematically than the method we describe as scumbling. The touch might be called a saw-tooth one, such being the shape or character of the markings when examined by a powerful glass. They are made excessively fine, and produce a very charming effect of stipple when printed. This may be seen by examining many of the American portraits.

*The methods in use upon the Continent* are, perhaps, nearer the perfection of retouching than most of those generally employed, and, although different styles may be used in the same town or studio by various operators, they seem to get the desired artistic effect to greater perfection than other countrymen. Continental negatives are manifestly much over-worked in many instances; but, as a rule, they please the public and the majority of photographers.

Herr Mohr, of Frankfort-on-the-Maine, was, we believe, the first to introduce negative retouching into England. True, there were a few who worked it secretly before his advent, but they guarded their operations so carefully as to leave the rest of the profession in ignorance as to



the method they employed for producing such good results; and until Herr Mohr taught it generally it was not practised to a very great extent.

We shall describe as nearly as possible the way in which the negatives we saw retouched in different places upon the Continent were done. In Germany the finished result resembles more the hatching upon a crayon drawing or water colour. The retoucher first proceeds to fill up all transparent spots or lines, as in the aforementioned methods, but in a little different manner, using the point of the pencil more, lightly dotting until all the markings—such as freckles, blotches, and optical exaggerations—are removed, and the face presents a tolerably even and smooth appearance, showing no signs of the markings. He now begins by means of cross hatching to model the face, placing a line or touch here and there as his eye happens to catch some unfinished portion wanting in gradation. The lights are put in their respective places, and gradually softened into the half-tones and shadows until the negative appears of that rotundity and modulation which a good retoucher so loves to see building up under his pencil. As he attains more experience he ventures upon bold touches, which give the negative much greater value and disperse the mechanical

stiffness which beginners are too apt to give their touching. When the requisite amount of hatching is done (the lines of which are not at angle of  $45^{\circ}$  but of about  $30^{\circ}$ ) our retoucher begins to fill in between the lines or cross hatches.

The method practised by the French generally has the advantage over the German of being less liable to lose the likeness, although there is really a very trifling difference in the handling; in truth, in most of the methods the commencement is nearly the same, the negative being first made even throughout and then worked up until sufficiently soft. Most of the French retouchers, after having levelled the face and removed the inequalities, do the modelling required by making very fine, long, downward strokes, rather curved. This does not produce exactly the stipple most suitable, but makes the face very smooth and soft. The negatives are usually treated with gum or a mixture of gum and dextrine dissolved in warm water; this takes the pencil as readily as paper, but has the disadvantage of the film splitting, owing to the absorption of moisture by the gum and dextrine. The Germans retouch, as a rule, upon the varnish, using as a medium some gum solution which will give a bite to the pencil.

*gum  
and  
Dextrine  
split*



---

While speaking of mediums we shall say a few words respecting our own retouching medium. Disclaiming totally the idea of using our book for advertising purposes, we still feel justified in introducing the subject, being convinced that by the use of a proper article results may be obtained quite unapproachable where varnish is used. The use of ordinary gum is attended with many disadvantages, as we have before mentioned. The films treated with it are very liable to split and crack if not varnished immediately or if the varnish be applied cold, from the fact that they absorb moisture, which, if not thoroughly expelled, destroys the film. The medium which we supply has not this objection, being made with a view of overcoming the difficulty spoken of. Besides this it renders the film very tough and gives a fine tooth, upon which a pencil of any grade may be used with as much ease as upon paper.

When working upon mediums of any kind breathing upon the plate must be avoided, as by so doing the film becomes softened and the pencil cuts through. The spotting is much easier upon films than upon the glazed varnish, and besides which the touching is protected by subsequent varnishing.

The following solutions are employed by some of the best retouchers, and have been highly recommended at different times, each being advocated by the artist in whose hands it worked satisfactorily :—

The first and, perhaps, the best kind of medium intended to be used upon the varnished negative is to dissolve eighty grains of gum in one ounce of benzole.

When dissolved and filtered the solution is applied to the part to be worked upon with a tuft of cotton-wool.

When it is nearly dry—which should be almost immediately after being applied—it may be rubbed gently with the ball of the finger. Retouching which at first is not satisfactorily done may be removed with a little benzole and the negative re-worked.

Another solution, to be used in the same manner as above :—Dissolve in one ounce of benzole ten grains of clear resin ; allow to subside for a day or two before using.

Another :—

|               |           |            |
|---------------|-----------|------------|
| Turpentine    | - - - - - | 1 ounce.   |
| Gum dammar    | - - - - - | 10 grains. |
| Canada balsam | - - - - - | 5 ,,       |

Another :—

|                       |           |           |
|-----------------------|-----------|-----------|
| Spirits of turpentine | - - - - - | 3 ounces. |
| Cuttle-fish powder    | - - - - - | 1 ounce.  |

*Benzole  
Medium*

This is strongly recommended by Mr. Beattie. The directions for its use are the same as the above, the part being rubbed with the ball of the finger if streaks appear.

Another (to be applied cold to a negative which has been coated with gum water):—

|          |       |     |            |
|----------|-------|-----|------------|
| Ether    | - - - | OK! | 15 ounces. |
| Sandarac | - - - |     | 1 drachm.  |
| Shellac  | - - - |     | 6 drachms. |
| Mastic   | - - - |     | 6 „        |

*ellatt  
Varnish*

Dissolve, and add two and-a-half ounces of benzole.

One other method described—being a French idea, and both novel and efficacious—is to make a solution of—

|            |       |          |
|------------|-------|----------|
| Gum arabic | - - - | 1 part.  |
| Water      | - - - | 7 parts. |

And another, of—

|                      |       |          |
|----------------------|-------|----------|
| Bichromate of potash | - - - | 3 parts. |
| Water                | - - - | 7 „      |

The bichromate solution is added to the gum solution until it assumes the colour of dark sherry wine. In this state it must be kept in the dark. The plates are then coated and kept in the dark until dry, when they are exposed for half-an-hour to strong light. They are then varnished with a hard matt varnish.

*near near*

We can scarcely see the advantage of varnishing with the matt varnish before retouching, as the gum and bichromate would form hard, insoluble varnish themselves when exposed to light. Still, we give the quotation as we have it; the reader may try both systems and choose the one most suitable.

Besides the above there are negative retouching varnishes made by some of the photographic dealers upon which the retouching is done without any medium or abrading substance being necessary. In using a varnish of this kind it should always be well tested to see that it does not crack or become tacky when heated or placed in the sun.

When negatives are retouched upon the gummed film, and prints taken from them before varnishing, there often appears, after varnishing, a number of minute yellow or brown spots; this is either caused by the paper being laid on while still damp, or the film has absorbed moisture and taken silver from the paper, which prints or darkens in the light. Care should, therefore, be taken to have both surfaces quite dry; and as a greater precaution kaolin finely powdered may be dusted lightly over the film previous to the paper being placed in contact.

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Retouching with a brush and colour has been recommended, and is practised by some retouchers here and abroad. When this is done (which takes much longer than with pencil) a very fine, stiff brush and *neutral tint* colour is used. No gum must be mixed with the colour, as it would adhere to paper and spoil the negative.

Retouching with a needle point has also been mentioned, but we have never seen any very satisfactory results produced by it. If it be done the parts intended to be lightened must be carefully scratched with the needle—keeping the negative warm while working—and black lead brushed over to fill in the scratches so produced. When all the shadows have been so worked the too strong lights are lightened by scratching, no lead being, of course, used. The negative, when varnished, is then ready for the printer. For this process a special collodion is necessary. A little fine resin or gum added to an ordinary collodion will answer the same purpose; the negative, after washing, has a weak solution of albumen—strength one ounce to twenty ounces of water—flowed over it and allowed to dry. By using a thin collodion and keeping the plate warm the scratching can be done with much greater facility. The only advantage we can see in such a process is where very hard, over-dense

negatives are to be worked, in which case the over-dense portions are made much lighter by the scratching process.

## CHAPTER V.



## REMBRANDT'S, LANDSCAPES, &amp;c.

## REMBRANDT'S.

THIS style of portrait will be found more difficult to manage. As a rule, photographers who attempt this style of lighting either make the light upon the profile too strong or the shadow too deep. One fault is equally as troublesome as the other to the retoucher. It is to be regretted that photographers do not content themselves with soft effects produced by the first development and not resort to after-intensification, thereby destroying all the detail in the light side of the face.

However dense a light may be in nature it always contains detail and modulation, and so it should be in a negative. We will commence with the edge of the light upon the forehead, assuming the negative to be profile, or nearly so, as Rembrandt's usually are. Soften the light into the surrounding parts until the



temporal arch or crest is reached ; in this case the arch should receive (comparatively with parts around it) more light and show more plainly, although in shade, than if the negative were an ordinarily-lighted one. The malar bone and the palpebral muscles should all contain a little more prominence than in plainly-lighted negatives. We do not mean that they must be whiter ; but the modelling, in order to show well when printed as deeply as it is necessary to print Rembrandts, must be made to contain more contrast.

The light on the nose must be carefully worked out, and also the corner of the eyes ; the deep shadow formed by the orbital arch in under-exposed negatives will require a great deal of working to make it print properly. Much of this may be stopped-out at the back of the negative, as also much of the shadow side if too thin. Of course this must be done after the retouching has been carried as far as it is possible. Upon thin negatives it is a difficult matter sometimes to get the pencil to take where it has already gone over ; that is to say, if sufficient density be not got by the first application of the pencil, it is not easy to make the second application take. In such cases, by using the matt varnish at the back, and working upon it, sufficient

density may be attained. The eyes in a Rembrandt negative will require no working if the head be profile or nearly so, as they are generally too strongly lighted already, unless the negative be particularly well lighted ; they are, therefore, left to be retouched in the print.

## LANDSCAPES.

For landscape working very great skill is not required. The sky is usually the principal part to be worked upon ; for this purpose it is only necessary to work in a cloud effect suitable to the subject with ivory black upon the back side of the negative. Any deep shadows that may suggest themselves as being too deep to the retoucher may be treated with plumbago, and the landscape itself should be masked while the clouds are being printed. This mask may be placed upon the glass of the printing-frame, and should be cut large enough to overlap the outline a quarter of an inch. When the sky is just dark enough to show clearly the clouds—though not as dark, of course, as they are to be when finished—the mask is removed and the rest of the picture printed in.

When it is required to print a natural sky in by combination printing the simplest method we have found to answer in practice is to make two masks a shade

larger than the parts they are to protect—one to cover the sky and the other the landscape portion of the negative. These are placed upon the back of the negatives, and a combination print of the two made by first exposing the sensitive paper under the cloud negative and then adjusting it to the landscape negative, the sky of which is also masked. The masks having both been on the backs of the negatives, the line between sky and landscape will not be visible unless the prints were made in too strong a light. The paper is then removed. When combination prints of clouds are made the two printings must manifestly be carried on in the same light, otherwise they would be different in tone.

#### PRINTING CLEAN GROUND IN LARGE PORTRAITS.

It often happens that a large negative which is perfect in other respects has a very streaky and dirty background. To print such negatives as they are only reflects discredit upon the photographer. Vignettes are not wished for, and combination printing is very troublesome. By following the undermentioned directions prints with perfectly clean grounds may be made from such class of negatives with but little trouble :—

First trace the outline of the figure upon paper, and lay the paper upon a thick piece of felt, such as is used

for printing-frame pads ; cut through with a sharp knife both paper and pad. We now have a felt pad the size exactly of the figure. Place bits of cork at the upper corners and edges of the negative—upon the background half only. Now lay the silvered paper upon the negative, fastening the corners to strain the paper pretty tightly. Next lay the felt mask upon the paper just over the figure and close the frame. The object of this is to cause the felt pad to press the paper into close contact with the figure, while the corks keep the paper some distance from the negative on the background, thus printing the figure sharply but throwing the background so much out of focus that the light diffuses and produces a perfectly even ground. This “dodge” in case of copies is invaluable.

#### CRACKS IN FILMS.

If not too wide cracks in films may be easily removed by rubbing in with the ball of the finger either lamp-black, indigo, or plumbago, selecting whichever of the three will match nearest the printing density of the part of the negative, so as to avoid printing a white line. Soft French pastels are very useful for this purpose. The greys can be had in tones matching precisely any class of negative. It is only necessary to rub across the

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lines with the ball of the finger charged with the powder, and the lines disappear immediately. Pastels containing wax are of no use for this purpose.

## CHAPTER VI.

ENAMELLING PRINTS, INTENSIFICATION OF  
NEGATIVES, &c.

## ENAMELLING PRINTS.

THIS fashion, which for a time bid fair to gain favour with the profession, is gradually losing its charm. A *good* picture requires no such superfluous finish to add to its beauty; while, on the other hand, if the picture be finished in an indifferent manner, the enamelling gives rather the idea that such means had been resorted to for that purpose, thus hiding some of the imperfections in a glaring polish, which would have the effect of subduing by its attractive appearance the minor defects. There are, however, many persons who are admirers of the finish, and many whose customers prefer it to ordinary albumen paper finish. For the benefit of such we describe the methods of enamelling we have employed, and which

will be found to produce very good and, at the same time, very brilliant results.

The following we have found to give the toughest film, although it is a little more troublesome than those methods usually practised:—The first process after the finished prints have left the water is to lay them in warm water until they are required for use. Have a solution of gelatine, made by dissolving one ounce of gelatine in half-a-pint of water. The simplest way to do this is to allow the gelatine to remain in the cold water until well swollen; then warm gently and add one drachm of white sugar. When dissolved pour the gelatine into a clean dish, and, taking the prints from the warm water, blot them and lay them upon the solution of gelatine in the same manner as floating albumenised paper upon a silver bath. Allow to remain a few seconds, and lay them upon their backs on clean paper to dry.

The plates are now prepared by polishing first with a solution of white wax in benzole of the strength of five grains to the ounce of benzole. A little of the solution is poured upon the glass and spread over with a piece of rag, and finally polished with a clean tuft of cotton-wool. When all are waxed collodionise with plain



collodion, and place, when set, in cold water until all greasy lines have disappeared. The prints have now to be laid upon the glass. To do this they must first be placed in a solution of chrome alum two per cent. strength, about 90° Fah., and then placed upon the glass with a piece of waxed paper over them. Before they are quite dry paste a piece of stout cartridge paper at their back. Stroke out the water and allow them to dry, when, if properly done, they will spring from the glass. They may now be cut to the required sizes, and, if medallions, embossed in the cameo press. By using this method the collodion, from being placed in water immediately, is less liable to catch particles of dust that may be flying.

Another method is to prepare the glasses as above, collodionise, and allow to dry. When dry, run a line of solution of india-rubber around the edges to prevent the film leaving the glass. The prints are then floated upon the gelatine solution and placed immediately upon the glass. The water and superfluous gelatine is stroked out, care being taken that there are no minute air-bells between the print and the collodion, and the prints backed with paper and allowed to dry. This is the simplest method, but is not quite as neat nor as sure as the first mentioned.

Attempts have been made to produce the fine enamelled surface with a varnish; but the results are far from being satisfactory, and the process is quite as, if not more, troublesome.

One drawback to enamelling is the great difficulty of spotting the prints. Water colour washes away or runs when the gelatine is put on, and oil colours do not meet the requirements of the case. By using a quantity of gum with the colour and waxing the prints, after the spotting, can be made to match tolerably well. Colours are also supplied to retouch the prints before they are glazed; but we cannot give an opinion as to their efficacy, not having used them ourselves. By mixing the colour with albumen the colours do not run so much, as the albumen coagulates when in contact with the warm gelatine; but, even then, the colour lies unevenly and granular. A drop of solution of gum dammar in ether will fix the touching, or the whole print, if much worked upon, may be brushed over with matt varnish. Small spots may be obliterated with a soft pencil.

#### CHEMICAL INTENSIFICATION OF PARTS OF NEGATIVES.

It often happens that a negative could be made perfect if it were possible to give intensity to certain

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parts only. A landscape, for instance, may have a fine clouded sky, but the view portion is too weak for printing; if intensified the sky is lost. This may be done as follows:—Have ready a solution of iodide of potassium and iodine about the colour of dark sherry. To prepare this solution add iodine to water until a dark, muddy precipitate is formed; then add iodide of potassium until the liquid clears, and dilute with water to the required strength. Having developed the negative, wash well and flood with the iodine solution, and rinse with clean water. Allow it to dry, and run a line of varnish around the edge to prevent the film leaving the glass during the second development.

When thoroughly dry go round the edges of the part to be intensified with a large brush (finely pointed) charged with water. This line must, of course, be made inside the contour line; keep it well flooded until the contour is all drawn, and with a larger brush fill in the space to be strengthened with water. This will have to be done very skilfully or the lines of the brush will show. When the part is well covered with water pour on the intensifier, which will flow over the wet portion only, stopping at the edges where they come in contact with the dry part of the film. When the inten-

sifier has done its work wash again, fix, and dry, when the negative will be properly intensified in all parts. This process may be employed to intensify a face, drapery, or backgrounds ; or by substituting cyanide of potassium for the intensifier the parts may be reduced if too strong. At first sight it would appear that the contour line would be sharp, or cut out, as it were ; this, however, does not happen if skilfully managed, as the extreme edge dries slowly during the painting, and in so doing softens the edge, which would otherwise appear too strong.

#### SPOTTING PRINTS.

When the negatives are properly retouched and have no spots of dirt or chemical spots upon them the prints will, provided they were carefully printed, require no spotting ; but if the negatives were carelessly taken, badly spotted or retouched, a white spot upon the print will occur wherever a dark one exists in the negative.

For spotting these mix upon a palette a colour to match as nearly possible the tone of the print. Black, brown, rose madder, and neutral tint in proper proportion will match any photographic tone nearly enough for general work. A little gum must be ground with the colour to make it run more freely, and to give it the

same glaze as the albumenised paper. Use a small, finely-pointed red sable brush charged with colour, taking only sufficient to cover the spot. Too much colour in the brush is not advisable, being more difficult to work with and often making the spots too dark. It is always better to have the touching a little lighter or a shade darker than the photograph. The photographs, when touched, will be much improved if polished with the following paste :—

*Encaustic Paste Formula.*—Dissolve with gentle heat—

|                                |           |            |
|--------------------------------|-----------|------------|
| White wax (pure)               | - - - -   | 3 ounces.  |
| Essence of turpentine (white)- | 3½        | „          |
| Copal varnish (pure)           | - - -     | 1½ drachm. |
| Oil of lavender                | - - - - - | ½ „        |

Rub a little of the paste over the picture with a soft rag, and polish with a piece of old, soft flannel.

In conclusion : we hope our readers will give a fair trial to the processes we recommend, and trust that our work, short as it is, may be the means of assisting those who give it careful consideration to overcome any difficulties they may have encountered and been unable to trace the cause of failure.



# BEST FRENCH MOUNTS,

MADE BY

## MARION & CO.,

At their Factory, Courbevoie, near Paris,

ALL SIZES — ALL STYLES — NEW PATTERNS — QUALITY SUPERIOR TO  
ANY OTHER MAKE.

To judge if a Mount be of fine quality tear it down the middle. The inside should be perfectly white, showing that the best paper has been used in the making: and, on the contrary, when the middle is of a yellowish, sandy colour, the Mount is inferior.

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Best Picked Rives .. .. £5 10/.      Saxe .. .. .. £6.

All Tints supplied without extra charge.

MARION'S HELIO-RIVES, Albumenized .. .. £4 4/.

Very much liked.

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With Four-Sets of Dies, Oval and Cushion C.-D.-V., and Oval and Cushion Cabinet, for giving convexity to Portraits. Much used for the Enamel Portraits.

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Very useful for Mounting Photographs in Books, as no cockling ensues.

### MARION'S FERRO. PRUSSIATE PAPER,

For Copying of Drawings, Plans, Maps, &c.

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[See following page.]



# MARION & CO.

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## ALBUMS.

**FOR PORTRAITS**—A Stock kept, from 9d. to £10 10/ each. In ordering, it is only necessary to state—Albums for 50, 100, or 200 Portraits, at such and such prices.

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## FRAMES.

**FOR PHOTOGRAPHS**—For C.-D.-V. and Cabinet we keep in stock Wood, Velvet, Ivory, Gilt Metal, Silvered Metal, Leather, prices varying from 2½d. each up to £4 4/. The selection being so large, it is only necessary to state, when ordering, the material and the price.

**FOR LARGE PHOTOGRAPHS AND PICTURES**—In Oxford, Gilt Mouldings, and Ormolu in Cases. Samples and prices sent on application.

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## PHOTOGRAPHS.

**PORTRAITS**—C.-D.-V. and Cabinets of all eminent people. Large Carbon Photographs, 24 × 18, of Royal Family and Statesmen.

**VIEWS**—Home and Foreign, a great variety.

**PICTURES**—From the Principal Ancient and Modern Painters.

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## PHOTOGRAPHIC REQUISITES

.Of ALL KINDS supplied at Lowest Prices consistent with quality.

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# P. MEAGHER, PHOTOGRAPHIC APPARATUS MANUFACTURER.

**AWARDS.**—  
*International Exhibition, 1862—HIGHEST AWARD.*  
*Photographic Society of Scotland, 1863—ONLY MEDAL.*  
*Berlin International Exhibition, 1865—MEDAL.*  
*North London Exhibition, 1865—ONLY PRIZE MEDAL.*  
*Dublin International Exhibition, 1865—HIGHEST AWARD.*  
*Paris Universal Exhibition, 1867—ONLY MEDAL FOR CAMERAS.*

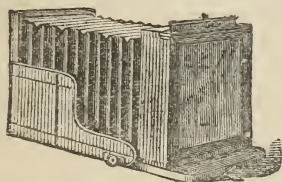
The above are the only Exhibitions where I have been an Exhibitor; and the award of each Jury was for great excellence in design and manufacture of Cameras.

## MEAGHER'S NEW FOLDING CAMERA.

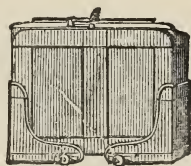
THIS CAMERA is similar in construction to the already well-known Binocular Camera, and possesses the following advantages over the existing Landscape or Kinnear form of Camera:—No screws are required for fixing; the focussing is effected from the back by the screw adjustment; the focussing-screen is attached to the Camera, and the bellows body is PARALLEL. This will be found of great advantage when using wide-angle lenses. It is available either for the studio or field, the range of focus permitting the use of the shortest-focus stereo. lenses, or any of the Wide-angle, Doublet, or View Lenses, also for the C.-D.-V. or Cabinet Lenses.

"The Cameras of Meagher deserve especial examination, as well for the perfection of their workmanship as for their perfect adaptation to the purposes for which they are designed."—*Vide Report of Jurors, Class IX., International Exhibition, Paris, 1867, Illustrated London News, September 14, 1867, page 298.*

"Of the Camera in its most improved form we cannot speak otherwise than in terms of unequalled praise."—*Vide THE BRITISH JOURNAL OF PHOTOGRAPHY, March 8, 1867.*



This Camera is used in the Government Photographic Departments, and by nearly all the best Amateur and Professional Photographers, and has been adopted by nearly every Maker of, and Dealer in, Cameras, both at home and abroad.



See the various Illustrated Catalogues.

\* These Cameras were selected by Captain Abney, R.E., for the Photographic Equipment of H.M.S. "Challenger," the American Boundary Commission, and the Arctic Expedition.

| Prices for Pictures.  | Swing Back extra. | Brass Binding. | Russia Leather Bellows. |
|-----------------------|-------------------|----------------|-------------------------|
| 8½ by 6½.....£5 16 0  | £0 15 0           | £1 0 0         | £0 18 0                 |
| 8½ by 8½..... 6 10 0  | 0 15 0            | 1 0 0          | 0 18 0                  |
| 10 by 8..... 6 16 0   | 1 0 0             | 1 5 0          | 1 1 0                   |
| 10 by 10..... 7 10 0  | 1 0 0             | 1 5 0          | 1 1 0                   |
| 12 by 10..... 8 0 0   | 1 5 0             | 1 10 0         | 1 7 0                   |
| 12 by 12..... 8 15 0  | 1 5 0             | 1 10 0         | 1 7 0                   |
| 15 by 12..... 10 0 0  | 1 10 0            | 2 0 0          | 1 17 6                  |
| 15 by 15..... 11 10 0 | 1 10 0            | 2 0 0          | 1 17 6                  |

The above prices include one Single Back and two Inner Frames.

If required for copying purposes, these Cameras are made with extending fronts, and can also be fitted with Repeating Back for two Cabinets and two C.-D.-V. pictures on one plate, thus meeting all the requirements of the practical Photographer. For the larger sizes, above 8½ by 6½, I recommend the square form and swing back.

Extract from a letter from Mr. H. P. ROBINSON:—"I like your New Camera very much; it is very perfect and complete." "I have never used a Camera which has given me more satisfaction."—Mr. B. J. EDWARDS. "I am very much pleased with your New Camera."—Dr. VOGEL, Berlin "The Camera I consider perfect. \* \* It is a model of lightness and strength; in fact, I cannot eulogise it too much."—Mr. E. DUNMORE. "The New Camera is a splendid instrument, perfect in every respect."—Messrs. SAWYER & BIRD. "I consider your New Folding Camera, with extending front, the most perfect instrument I have ever used."—Mr. J. VALENTINE, Dundee.

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 CAMERA STANDS, HEAD RESTS, PRINTING FRAMES,  
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*Dishes, Trays, Funnels, &c., of the best quality, at low prices.*  
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*For Large Plates. For Hot Climates.*

*For all Photographic Purposes.*

NEGATIVE AND MATT VARNISHES,  
 PREPARED BY  
**HUGGON & CO., PARK ROW, LEEDS.**

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*BEG to announce that they have PURCHASED the Old-established BUSINESS of*

**SOUTHWELL BROTHERS,**

**PHOTOGRAPHERS ROYAL,**

**22, BAKER STREET, LONDON, W.,**

TOGETHER WITH THE

**LARGE STOCK OF NEGATIVES, &c.,**

*of the Business, which has been successfully carried on for over 20 years*

*Messrs. B. & C. purpose making Extensive Alterations and Improvements, which may delay the occupation of the Premises until the end of October, after which date all communications may be addressed there.*

*They will still continue to receive commissions for Retouching and every description of Trade Work as hitherto.*

*They also call special attention to their increased facilities for giving Instructions. Their Studios are acknowledged to be of the finest ever erected in Great Britain; and they will be fitted with every known Appliance and Improvement for executing all kinds of Work. In addition to this, Spacious CHEMICAL LABORATORIES,*

**LIME AND SOLAR-LIGHT ENLARGING ROOMS**

*will be constructed, and, in fact, every convenience for carrying on this line of business. After the completion of these Alterations, which will be duly announced, Photographers and Amateurs may receive Personal Instructions in any branch of Photography, and the working of any of the Processes and Improvements.*

*All letters of inquiry, commissions, &c., will receive immediate attention.*

*For fuller particulars see Messrs. B. & C.'s detailed circular on pages vii, viii, and ix.*

**FREDERICK J. COX,**  
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 PHOTOGRAPHIC MATERIALS. 26, LUDGATE HILL,  
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## ALBUMENISED PAPER.

COX'S (our own formula), especially prepared for C.-D.-V. portraits; and, as none but FRESH ALBUMEN is used, the pictures are more permanent than when the common decomposed foreign paper is employed.

Per Quire, 6s. (post-free, 6s. 6d.); per Dozen, 3s. 6d.; Six Sheets, 2s.

This Paper can be had either White, Mauve, or Rose Colour, same price. A forty-grain silver bath is most satisfactory, and any ordinary toning bath works well with these papers.

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Per Sheet, 1/-; Three Sheets, 2/6.

The great convenience of being enabled to procure, at a minute's notice, ready sensitised paper that may be kept several days before use is extending the sale of this article.

We believe our samples are equal to any in the market and give general satisfaction.

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*Photographic Apparatus and Chemicals, Materials, &c.,*

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SECTION III., POST FREE, TWO STAMPS.

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LOCKET MINIATURES, ON IVORY AND PAPER, EXQUISITELY FINISHED.

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## NEGATIVE GLASS,

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Crystal or Photo-Blue Glass for Glazing Studios.





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Now undertake Commissions of every description, and guarantee them to be executed in the best possible manner.

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### RETOUCHING.

OUR Retouching has already gained such a reputation as to require no further comment, and a perusal of our Circular upon it will enable Photographers to judge pretty nearly of its merit.

We may, in addition to this, point to the advantage of having Negatives Retouched by Practical Photographers.

Retouchers who are accustomed only to retouch acquire a habit of working all over a negative in a mechanical style, without regard to effect, and, being neither artists nor practical printers, often do not know the value of the work they do.

In this manner the likeness is very frequently lost, and the original character of the negative spoiled.

We guarantee in no case to lose the likeness, and at the same time to enhance the printing qualities of the negative: improving defective lighting, and modifying those exaggerations which photography unfortunately is heir to.

Photographers contemplating sending work regularly to be retouched may, by arrangement, have a given day or part of day laid aside for them. It is in all cases advisable to notify us a day before sending negatives in quantity which are required quickly, in order that we may lay out our work accordingly.

Under the head of Instructions reference is made to Teaching Retouching personally or by letter.

This latter course we have adopted and given our special attention to in consequence of having, during the past several months, received many applications from gentlemen residing a long distance from town.

Instructions given in any of the methods of Retouching described in this book, by letter, and requisite materials furnished and a specimen negative worked up in which-ever style may be decided upon; after which we continue to advise our Pupils, from time to time, by letter upon receipt of examples of their efforts until they have attained efficiency.

### CHEMICALS.

We may simply say here that we supply every kind of Chemical and Photographic Solution, ready-made and tested, and warranted; also Dry Plates, Solutions for working various processes, Toning Solutions for Enamels, Opals, Transparencies, &c., and Sets of Apparatus and Chemicals for Amateurs, at moderate prices.

[See following pages.]

## BATHS! BATHS!!

In addition to the usual Solutions, we supply a negative bath which we can specially recommend, giving Photographers at the same time a most practical means of securing a PERFECT BATH at a moderate cost.

Photographers having old, worn-out Baths can send them to us, and receive by RETURN CARRIER one of our own make, made from the best triply-crystallised silver, and absolutely perfect.

The old Baths sent to us are tested by PRECIPITATION, and the Photographer credited with the amount of silver contained therein.

|                                    |              |             |
|------------------------------------|--------------|-------------|
| The Price of Bath is.....          | 28s. 0d. per | Winchester. |
| Charge for Reducing Old Baths..... | 5s. 0d. „    | Gallon.     |
| „ Rectifying „ .....               | 2s. 6d. „    | Winchester. |

## MATT VARNISH.

For working upon the backs of Negatives, price..... 6s. 0d. per Pint.  
Five-ounce Bottles ..... 2s. 6d.

## APPARATUS.

CAMERAS, DARK TENTS, ARCHIMIDEAN and TRIPOD STANDS, and every description of APPARATUS made to order to suit the requirements of any special case. All work warranted, made of the best material, and thoroughly well seasoned.

LENSES, &c., by all Makers supplied.

For Retouching we supply a LEAD specially prepared for the purpose, which we can recommend as being absolutely free from grit. CATALOGUE in course of preparation.

## TANNIN MEDIUM.

Tannin Retouching Medium, for working upon the film, in bottles—3s. 6d., 5s. 6d., 18s. 6d. (Winchester quarts). For particulars and testimonials see circular, and advertisement in photographic papers and year-books.

## INSTRUCTIONS.

We refer with pleasure to the fact that, having devoted much time to teaching Photography—many of our Pupils being successful Professional Photographers at present—we are prepared to give Instructions in any of the branches of the Art, or in any of the more recent processes and improvements.

## CARBON PRINTING

Taught at Photographers' own residence, in which case we guarantee successful working of the process.

LETTERS OF INQUIRY upon this subject should contain examples of the defects complained of, to enable us to advise correctly.

Special Instructions at reduced prices to Amateurs.

## LETTERS OF INSTRUCTION

Can, in all cases, be sent upon any subject upon which the Photographer is not quite clear. EXPERIMENTS carried out or assisted. All communications regarded as strictly confidential.

## ERECTION AND ALTERATION OF STUDIOS.

Many Photographers wishing to Build, Rebuild, or Alter Studios feel the want of experienced men to undertake the work for them.

Architects and Builders who are not Photographers fail to give satisfaction from their ignorance of the requirements of the Photographer.

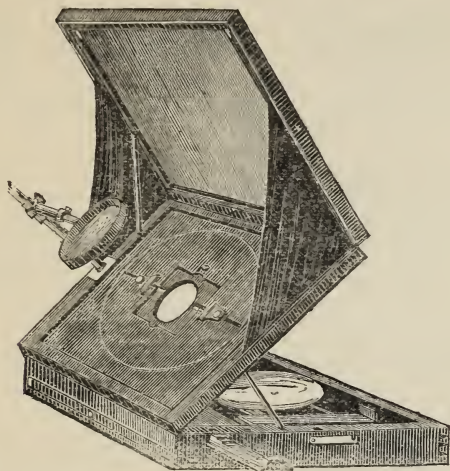
We undertake to supply DESIGNS and DRAWINGS, either as PRELIMINARY SKETCHES, or as fully finished sets of plans, with SPECIFICATIONS, ESTIMATES, and working details ready for the Builder's hands.

B. & C. undertake occasional Commissions for *first-class* Oil Painting, from photographs or from life. Orders for cheap work cannot be entertained, owing to their time being so much occupied with other matters.



We would call special attention to our

**PATENT COMBINATION**



**RETOUCHING DESK,**

*For Day and Night work, with Magnifier, improved Reflector, Pencil Pointer, Labour Regulator, and other useful improvements.*

This DESK enables the Photographer to retouch upon a negative in any position with the greatest facility, and to adjust the negative quickly, without the use of drawing pins, removal of inner frames or carriers, as is the case with every desk now in the market.

Another great advantage in this Desk is that the Magnifier, having a universal movement, can be adjusted in any position without interfering with the right arm. The utility of arrangement will be at once apparent, for this reason—the *Magnifying Glass, being held in the hand in the usual manner, is, of course, subject to much vibration; consequently, the eye having to accommodate itself to the ever-changing focus becomes permanently impaired.*

It is also fitted with an ingenious contrivance, which enables the retoucher to regulate the amount of work done and to judge exactly of the effect of it upon the finished print. We find it somewhat difficult to explain our meaning upon this point. We will, however, instance the use of the appliance in our practice: a negative is sent to us to be retouched at a certain price, we regulate in a moment the arrangement to the amount of work to be done; by this means all negatives of a given price receive proportionately the same amount of labour.

This applied to the practice of the professional Photographer enables him to lay out his day's work according to the amount of time at his disposal.

The Reflector used is of such construction as to enable the retoucher to work at least one hour and a-half later than with the ordinary mirror (this of course applies to day-light), and it is not imperative to be near a window.

For Night Work the Desk is fitted with a special arrangement, by which a steady reliable light is obtainable, not in the least painful to work by, which corrects the rays otherwise injurious, and enables the retoucher to work by artificial light without experiencing any of the injurious effects attendant upon working by night, as in the usual system.

Price of the Desk, complete .....£4 4s.

*Photographers who do not wish to retouch upon the film can be supplied with a special Retouching Varnish made for this purpose, which we warrant not to crack or become tacky, 4s. 6d. per Pint.*

Post Office Orders payable at Blandford-street, Baker-street. Cheques crossed "National Provincial Bank."

As our Prices are reasonable, we respectfully intimate that our Terms are Cash in all cases.

# STANLEY'S Extra - Sensitive Negative Collodion

*Is Rapid, remarkably Clean working, requires no intensification,  
and Keeps well.*

PRICE TO THE PROFESSION—

5 ozs. .... 1/10.    10 ozs. .... 3/-.    20 ozs. .... 5/9.    Winchester .... 20/-.

SAMPLE, post free, in box, 1/6.

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PHOTOGRAPHIC CHEMIST, 13, RAILWAY APPROACH,  
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WILLESDEN GREEN, LONDON, N.W.,  
PHOTO. PRINTERS, ENAMELLERS,  
NEGATIVE RETOUCHERS,  
AND  
MANUFACTURERS OF ALBUMENISED PAPERS.

PRICE LIST ON APPLICATION.

NONE  
GENUINE  
WITHOUT



REGISTERED  
TRADE  
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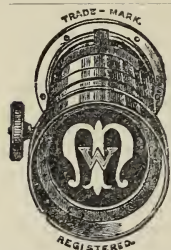
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